

NOAA's National Weather Service



Spring Workshop Roundtable

March 6, 2010

NWS Shift Toward Decision Support Services



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Presentation based on material from
Amarillo Warning Decision Support
Symposium (Nov 3-4, 2009).
In particular, material presented by
Mark Fox (NWS Fort Worth)



Decision Support Services

NWS Future Direction - Improving forecaster-provided
interpretive services for decision makers

(Jack Hayes, NWS Director 09/25/2008)

“Better decisions for America by improving forecaster-
provided interpretive services for decision makers”

(All hands meeting, 12/08)





Decision Support Services

The mission has not changed...the environment in which we deliver our mission has. How?

- Explosion of (instantly available) information
- Our reach has been extended (i.e., the new collaborative world)
- 9-11
- Rapid technological advances
- The value of our science has improved
- Demographics

Yet we are still all about life and property...public safety



Decision Support Services

Information Explosion!

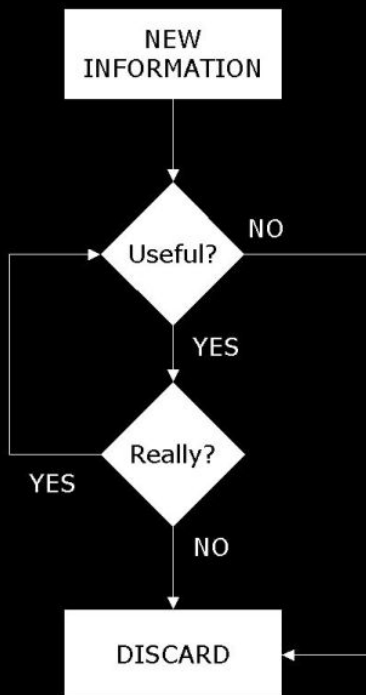




Decision Support Services

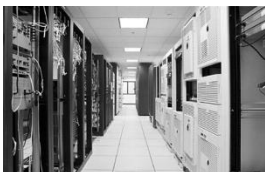
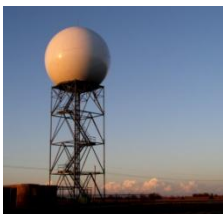
INFORMATION OVERLOAD

HOW TO COPE WITH THE SYMPTOMS OF INFORMATION OVERLOAD





Decision Support Services



Old Paradigm



Info → Forecasters → Products



Hazardous Weather Outlook

HAZARDOUS WEATHER OUTLOOK
NATIONAL WEATHER SERVICE LINCOLN IL
1109 AM CST MON FEB 22 2010

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CLAY-CRAWFORD-EFFINGHAM-JASPER-LAWRENCE-RICHLAND-
1109 AM C

Flood Warning

THIS HAZARDOUS WEATHER OUTLOOK
ILLINOIS.
.DAY ONE.
...THE FLOOD WARNING CONTINUES FOR THE FOLLOWING RIVER
THE LITTLE WABASH RIVER NEAR CLAY CITY AFFECTING CLAY AN
FRIDAY MOR COUNTRIES
.DAYS TWO
THE FOLLOWING FORECASTS ARE BASED ON OBSERVED PRECIPITATION
NO HAZARDOUS WEATHER FORECAST THE NEXT 24 HOURS.
.SPOTTER PRECAUTIONARY/PREPAREDNESS ACTIONS...
SPOTTER A IF YOU ENCOUNTER A FLOODED ROADWAY...TURN AROUND AND FIND
ALTERNATE ROUTE. TURN AROUND...DON'T DROWN.
\$\$
ADDITIONAL RIVER AND WEATHER INFORMATION IS AVAILABLE
WWW.WEATHER.GOV/ILX /LOWER CASE/.
KH

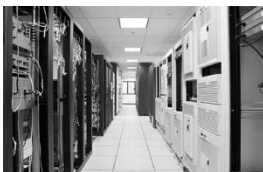
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Decision Support Services

New Paradigm



Info → Forecasters → Services

Frequent
Web
Updates



National Weather Service - Central Illinois Multimedia Briefing

The Multimedia Briefing is a product that is primarily designed to keep you informed of upcoming hazardous weather events over the next several days. The briefing will be updated as needed. However, it will be suspended during times of severe, convective weather. During those times, you are urged to consult our [severe weather summary page](#) for the most timely information.



Multimedia
Web
Briefings



State and Local Incident Support



Why Decision Support ?





The Monolith Monsters

- Made in 1957 – true in 2010
- Weather Briefings still done essentially the same as in the movie
- Weather Information still gathered essentially the same as in the movie
- The decisions being made are still essentially the same as in the movie
 - What does it mean for me?



Mindset Changes

Traditional NWS

- Products >> Service
- Here 'it' is
- Phenomenon
- Spending time on the routine forecast
- Producing the forecast

Decision Support NWS

- Products & Services
- Here is what 'it' means
- Phenomenon produces Impacts
- Spending time training for the extreme events
- Providing Service with the forecast



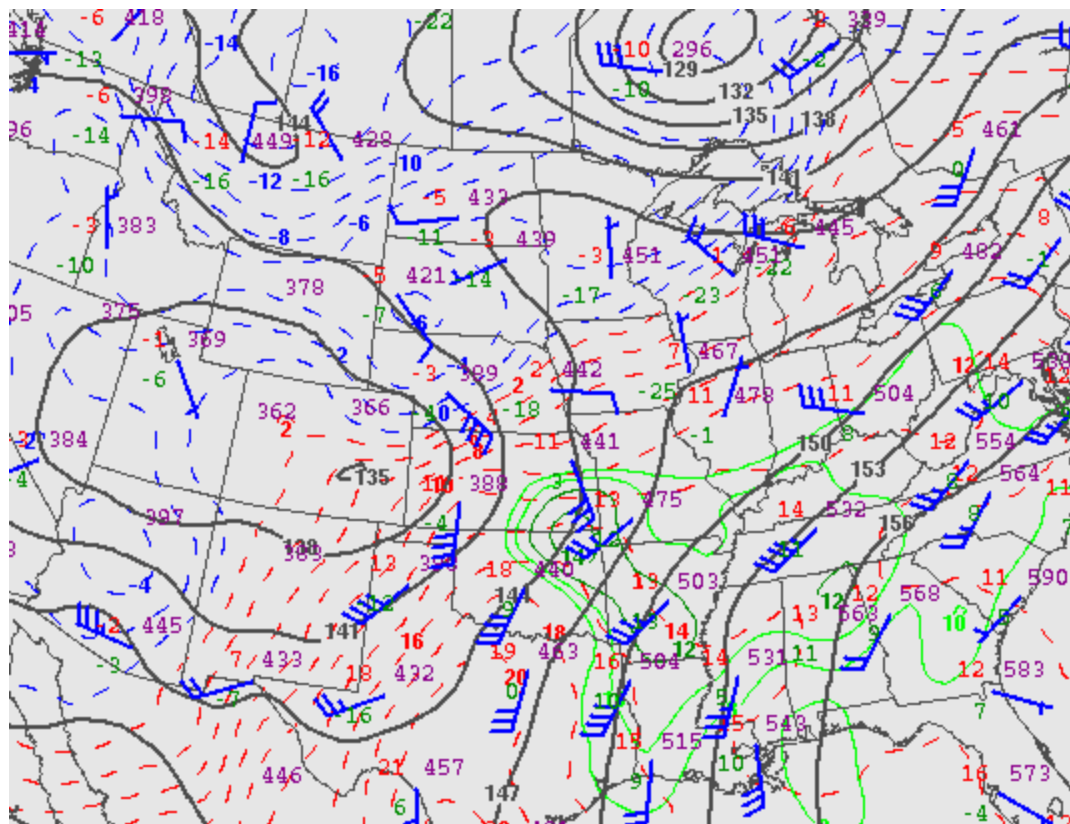
Why Does the Local NWS Exist?

- Everyone or anyone can see weather information
- Depending on Expertise...we see things differently



For Instance...EM's

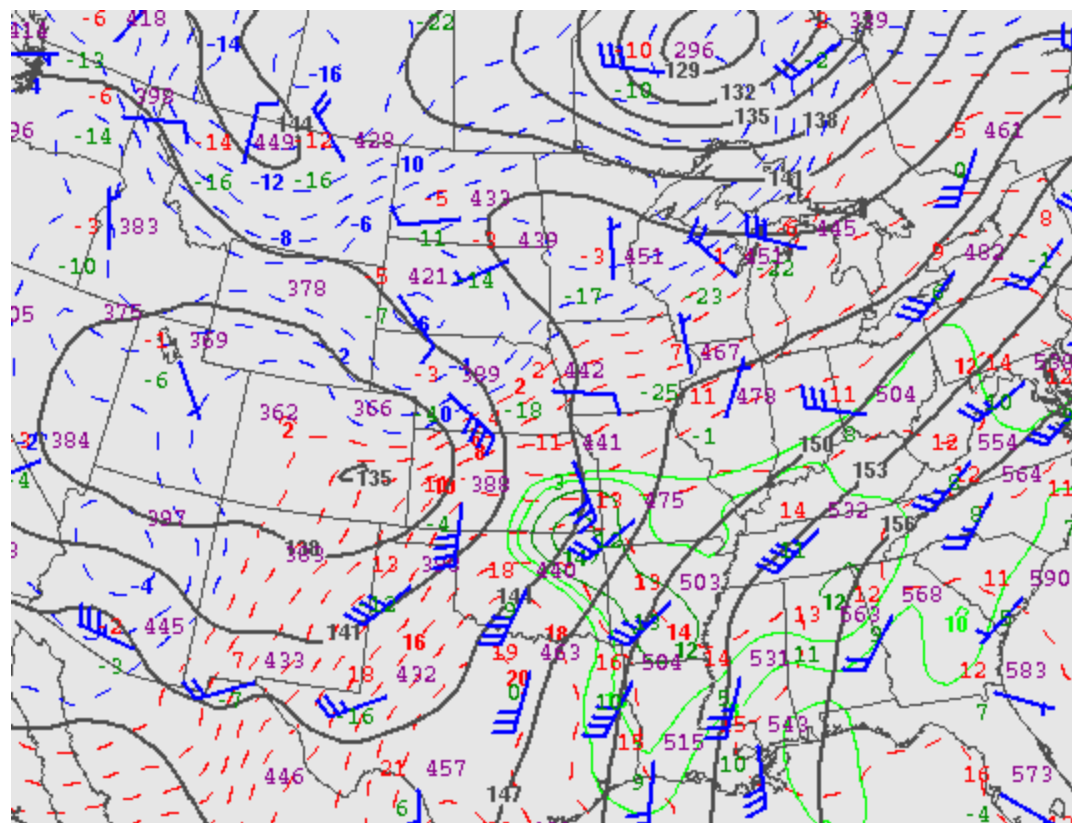
- What do you see ?





For Instance...Mets

- What do you see ?



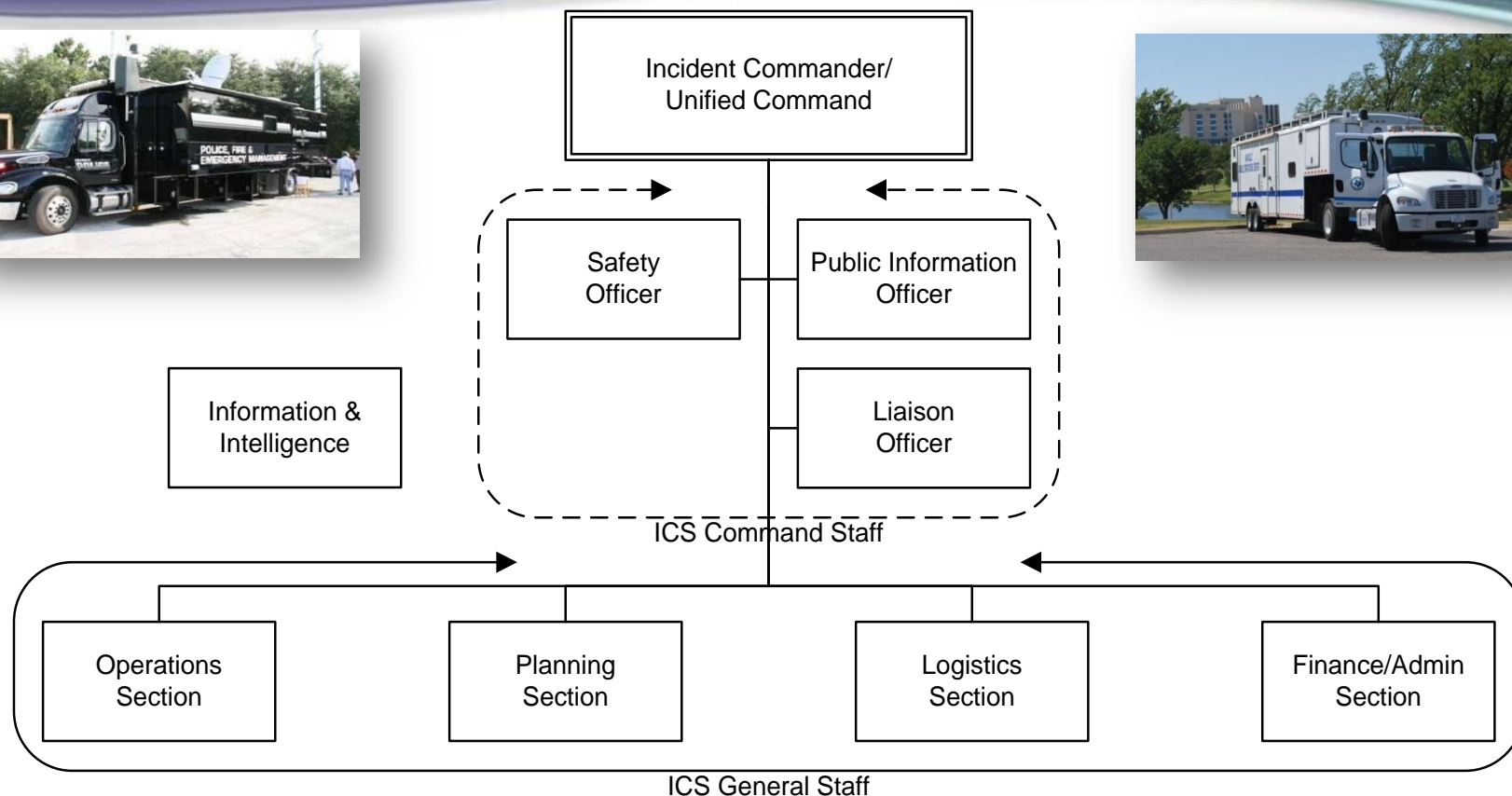


Making the Change

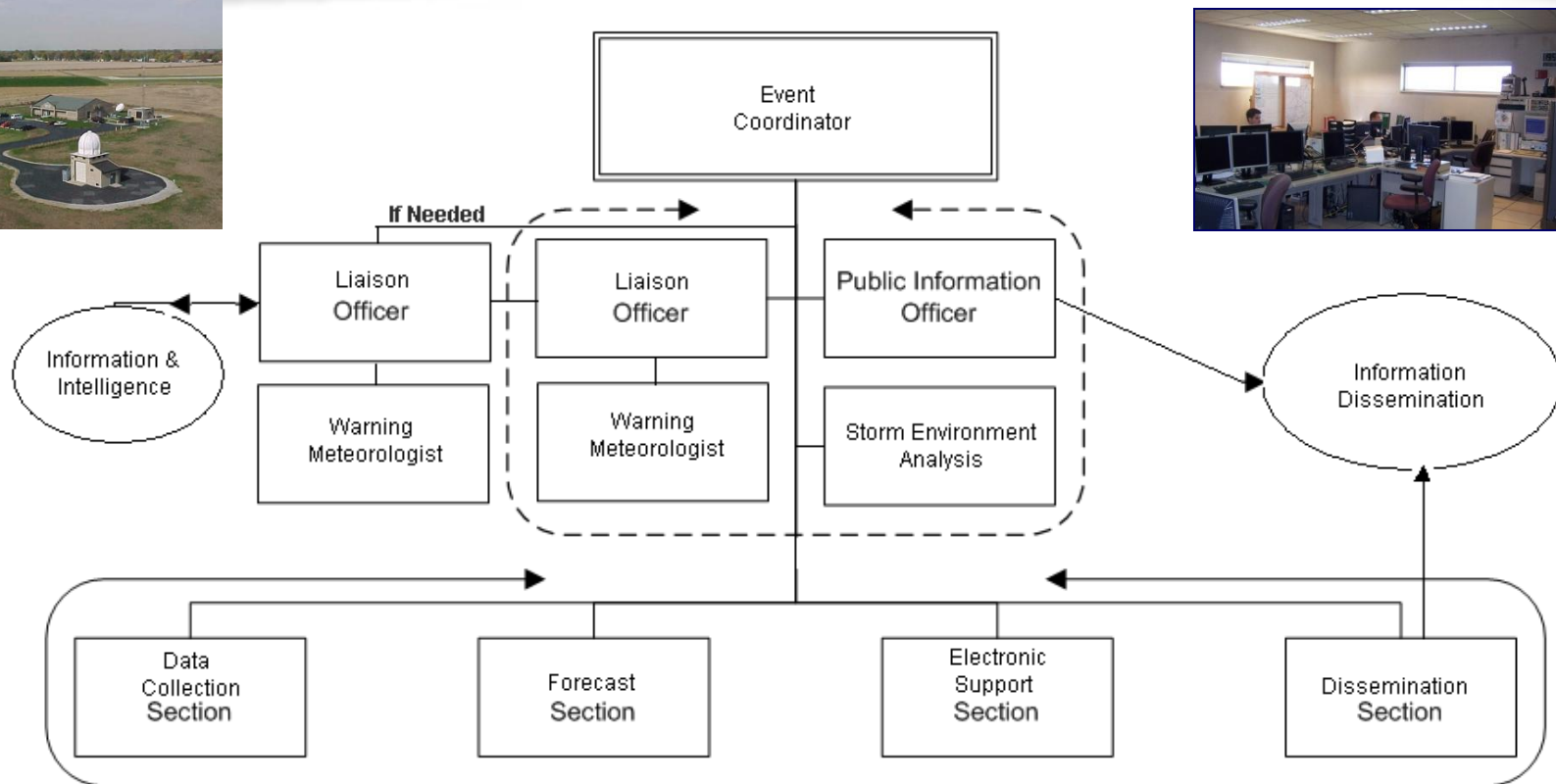
- Operationally, we (NWS) should be closer to the EM (ISC) model.



Basic Incident Command Structure



Provides Field Command & Control



Warning Operations



The Trade-Off

- Routine forecast mostly automated
 - Forecasters always diagnosing and forecasting the meteorology of the situation
- Focus is then on impact situations
 - Forecast is for X
 - Forecast discussion explaining why X is most likely
 - Graphical forecast showing X and potential for Y
 - Recorded Briefing explaining that Y could happen and how.
 - Web page explaining X, Y and Z are possible.



Skills For the Future

- Communication
 - Written
 - Verbal
 - Graphical
- Meteorology & Hydrology
 - Remains the Foundation
 - NWS should be recognized as the experts



Skills For the Future

- Confidence
 - Meteorology still not an exact science
- Incident Command Structure
 - Where does our information fit
 - Not always the most important piece of data
- Detailing weather information to known decision points
 - Must know the decision points (your part!)



The Bottom Line

- This is a partnership...plain and simple
- For the NWS to be effective, we need you (EMs and Media)
- You need the NWS to be effective
- Any Ideas on how we can be more effective as a TEAM?